

SECTION 09680

CARPET

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes
 - 1. Sheet Carpet
 - 2. Installation
- B. Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions.

1.02 SUBMITTALS

- A. Shop Drawings showing the extent of carpet, seam direction of carpet, and accessories shall be submitted to Architect for approval prior to installation. Check pattern match, if any, for matching during installation and possible waste factors in ordering required amounts. Should also indicate columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet. Copy of approved shop drawings to be available on job site during installation.
- B. Carpet schedule using same room designations indicated on drawings.
- C. Product Data: Provide data on specified products, describing physical and performance characteristics, sizes, patterns, colors available, and method of installation.
- D. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial color selection.
- E. Verification Samples: Submit two 18" x 18" samples illustrating color and pattern for each carpet material specified.
- F. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- G. Maintenance Data: Include maintenance procedures, recommendations for maintenance materials and equipment, and suggested schedule for cleaning.
- H. Manufacturer's Carpet Warranty.
- I. Certification and description of reclamation and recycling process per section 1.07 of this document.
- J. Certifications: Manufacturer to submit copies of the following independent laboratory reports showing compliance with requirements per these methods outlined in Part 2 of this document. Submitted results shall represent average results for production goods of the specified style.
 - 1. ASTM E-648 Flooring Radiant Panel
 - 2. ASTM E-662: Smoke Density

3. AATCC 134: Electrostatic Propensity
4. CRI TM-102: Fluorine Analysis
5. ASTM D-3936: Delamination
6. AATCC 20: Fiber Analysis

1.03 QUALITY ASSURANCE

A. Manufacturer Qualifications

1. Company specializing in manufacturing specified carpet with minimum 2 year documented experience.
2. Upon request, manufacturer to provide representative to assist in project start-up and to inspect installation while in process and upon completion. Representative will notify designated contact if any installation instructions are not followed.
3. Single Source Responsibility: Obtain each type of carpet from one source and by a single manufacturer.

B. Installer Qualifications

1. Flooring contractor must be certified by the carpet manufacturer prior to bid.
2. Flooring contractor to be a specialty contractor normally engaged in this type of work and shall have prior experience in the installation of these types of materials.
3. Flooring contractor possessing Contract for the carpet installation shall not sub-contract the labor without written approval of the Project Manager.
4. Flooring contractor will be responsible for proper product installation, including floor testing and preparation, as specified by the carpet manufacturer and JOB CONDITIONS herein.
5. Flooring contractor to provide Owner a written installation warranty that guarantees the completed installation to be free from defects in materials and workmanship for a period of one year after job completion.
6. Flooring contractor to provide Owner a written recycling warranty that guarantees the old carpet to be 100% recycled (not incinerated or waste to energy) and that the Flooring contractor will provide a certificate of recycling to the Owner in close out documents.

1.04 DELIVERY, STORAGE, & HANDLING

- A. Deliver materials to the site in manufacturer's original packaging listing manufacturer's name, product name, identification number, and related information.
- B. Store in a dry location, between 60 degrees F and 80 degrees F and a relative humidity below 65%. Protect from damage and soiling. Stack carpet rolls horizontally on a flat surface, stacked no higher than two rolls.
- C. Make stored materials available for inspection by the Owner's representative.
- D. Store materials in area of installation for minimum period of 48 hours prior to installation.

1.05 PROJECT CONDITIONS

- A. Sub-floor preparation is to include all required work to prepare the existing floor for installation of the product as specified in this document and Manufacturer's installation instructions.
- B. The maximum amount of moisture evacuation from the floor is 5.0 pounds per 1,000 square feet in 24 hours. The acceptable pH level of the substrate is between 7.0 and 9.0. Flooring contractor is responsible for floor testing.
- C. All material used in sub-floor preparation and repair shall be recommended by the carpet manufacturer and shall be chemically and physically compatible with the carpet system being bid.
- D. Maintain minimum 65 degrees F ambient temperature and 65% Relative Humidity for 72 hours prior to, during, and 48 hours after installation.
- E. Do not install carpet until space is enclosed and weatherproof, wet-work in space is completed and nominally dry, work above ceilings is complete, and ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy.

1.06 EXTRA MATERIALS

- A. Provide **additional 5%** of each type, color, and pattern furnished; product to be rolled and bound. Coordinate storage location with owner prior to commencing installation.
- B. Deliver all unused carpet and large scraps to Owner for "attic stock." Dispose of scraps less than 2 square foot in area or less than 8" in width.

1.07 CARPET WARRANTY

- A. Warranty to be sole source responsibility of the Manufacturer. Second source warranties and warranties that involve parties other than the carpet manufacturer is unacceptable.
- B. If the product fails to perform as warranted when properly installed and maintained, the affected area will be repaired or replaced at the discretion of the Manufacturer.
- C. Chair Pads are not required for carpet warranty coverage.
- D. Warranty shall not exclude carpet product installed on stairs provided it is properly installed and maintained.
- E. Warranty shall be for a specifically defined non-prorated period of Fifteen years. "Lifetime" warranties are not acceptable.
- F. The non-prorated Twenty-Five year warranty shall cover against and specifically define the following:
 - 1. Excessive Surface Wear: More than 15% loss of pile fiber weight
 - 2. Excessive Static Electricity: More than 3.0 kV per AATCC 134
 - 3. Resiliency Loss of the Backing: More than 10% loss of backing resiliency

4. Delamination
 5. Edge Ravel
 6. Zippering
- G. Tuft Bind warranty in lieu of edge ravel and zippering is not acceptable.
- H. Provide certification and warranty that product is fully recyclable through manufacturer's or aligned partner's currently operational recycling program. Include information regarding the following:
1. The recycling process(es) itself (i.e. separation of components, chopping, melting, pelletizing, etc.)
 2. Portions of the product that will be recycled back into itself
 - a. name/type of resulting product
 - b. end-use of resulting product
 - c. total product recycled content based on total product weight
 - d. whether resulting product is recyclable (fully or partially) or non-recyclable
 3. Portions of the product that will be down-cycled
 - a. name/type of resulting product
 - b. end-use of resulting product
 - c. total product recycled content based on total product weight
 - d. whether resulting product is recyclable (fully or partially) or non-recyclable
 4. Portions of the product that will be landfilled and/or incinerated. (NOTE: "Incineration" includes waste-to-energy conversion, extraction of embodied energy; using heat from incineration as a fuel source.)

PART 2 – PRODUCTS

2.01 FIBER

- A. Nylon Fiber: Branded Bulked Continuous Filament (BCF) Nylon
- B. Durable stain inhibitor should be applied to the fiber during product manufacturing to resist fiber staining and soiling. (Minimum average of three fluorine analyses of a single composite sample per CRI TM-102: 500 ppm.)
- C. Fiber to contain carbon-core filament for permanent static control. Topical treatments not allowed.

2.02 BACKING CHARACTERISTICS

- A. Thermoplastic vinyl composite.
- B. Primary Backing: Synthetic Woven or Non-Woven.
- C. Pre-Coat (Fusion Coat): Sealant Vinyl
- D. Secondary Backing: Closed-Cell, Vinyl Cushion backing system.
 1. Density (ASTM D-1667): 32.0 lbs/cu ft +/- 5%
 2. Compression Set (ASTM D-1667): Max 10%
 3. Impermeable to moisture and airflow
 4. Provide for a chemically welded seam that is also impermeable to moisture and airflow

5. 6' Width Roll Goods

- E. Product to be installed with a mill-applied releasable "dry" adhesive system (when/if available from Manufacturer) to securely attach product to sub-floor in compliance with ADA guidelines, Section 4.5.3. Free-lay and stretch-in installations not allowed.
- F. Product to provide asbestos enclosure properties.
Enclosure means an airtight, impermeable, permanent barrier around ACBM (Asbestos Containing Building Material) to prevent the release of asbestos fibers into the air.

2.03 PERFORMANCE CHARACTERISTICS

- A. Test reports for the following performance assurance testing to be submitted upon request.
Submitted results shall represent average results for production goods of the referenced style.
- B. Requirements listed below must be met by all products.
 - 1. Flooring Radiant Panel
ASTM E-648 / NFPA 253: Class 1 (CRF: 0.45 watts/sq cm or greater)
 - 2. Federal Flammability
CPSC FF 1-70: Passes
 - 3. Smoke Density
ASTM E-662 / NFPA 258: ≤ 450 Flaming Mode
 - 4. Electrostatic Propensity
AATCC 134 (Step & Scuff): 3.0 kV or less
 - 5. Static Coefficient of Friction
ASTM C-1028: Passes ADA Guidelines for Accessible Routes (Minimum 0.60)
 - 6. Delamination of Secondary Backing of Pile Floor Coverings
ASTM D-3936: No Delamination.
 - 7. Lightfastness
AATCC 16E: ≥ 4 @ 100 hours
 - 8. Vetterman Drum
ASTM D-5417: Minimum 3 @ 22,000 cycles
 - 9. Moisture Barrier
Moisture Penetration by Impact @ 10 psi: No Penetration of backing and seam after 10,000 impacts
 - 10. Air Flow Barrier
Air Permeability of Textile Fabrics: No Air Flow (0.0 ft³/min) through backing and seam
 - 11. Seam Integrity
Seam to remain intact after 50,000 cycles per Phillips Chair Test

12. VOC Chamber Testing

ASTM D-5116: Product inclusive of "dry" adhesive system meets criteria established by the State of Washington Indoor Air Quality Specification for Carpet and/or Carpet & Rug Institute's (CRI) Green Label Plus (CA 01350 equivalent).

13. Anti-microbial (pesticide) treatments.

AATCC-74 should not demonstrate a zone of inhibition when tested. In compliance with The Healthy School Handbook an NEA Publication Antimicrobials (pesticides) cannot be applied to fiber or backing during manufacturing.

2.04 MANUFACTURING SPECIFICATIONS

A. Manufactured by C&A Floor coverings

Style: Explorer	Powerbond RS Color: TBA
Construction	Tufted Loop
Gauge	1/13"
Stitch Rate	9.2
Pile Height Average	.109
Density Factor	8,129
Yarn Size	1235/2
Fiber System	100% Dynex SD Nylon with Static Control and Ensure
Dye Method:	100% Solution Dyed
Total Weight:	84.70 oz/sq yd +/- 5%
Interliner	Spun Synthetic
Powerbond Backing System	6 ft
Fusion Coat	Sealant Vinyl
Backing	Closed cell vinyl cushion
Weight	35.5 oz/sq yd
Density	18.5 lbs/cu ft
Thickness	.156"
Total Weight	84.70 oz/sq yd +/- 5%
Electrostatic Propensity	1.4 K.V. or lower
Flooring Radiant Panel Test	Mean average critical radiant flux: 0.45 w/sq cm or higher
Smoke Density	Flaming: Mean average: 450 or lower
Flammability	Passes
Warranties	25 year wear, delamination, edge ravel, static, zippering, loss of resiliency

B. Substitutes/Alternates

Subject to compliance with all requirements, "or equal" must match the selected color(s) and have similar aesthetic appearance and tuft density, closed-cell recycled content vinyl cushion backing (2.02D), proving to be an asbestos enclosure (2.02F), and "dry" adhesive system (if available) to fully attach carpet product to sub-floor (2.02E). Substitution sample and submittals must be submitted for written approval of quality and color at least ten days prior to bid to be considered. Sample of proposed substitute must be inclusive of both the face and proposed backing (color-only sample not acceptable).

2.05 ACCESSORIES

- A. Materials recommended by Manufacturer for patching, priming, chemically welding the seams, etc.
- B. Adhesives: Products to be supplied with a pre-cured, mill-applied or other "dry" adhesive system (2.02E) when available. Otherwise, adhesive should be full spread, extremely low VOC in compliance with CRI Indoor Air Quality Adhesive Testing Program requirements, compatible with materials being adhered, as recommended by the Manufacturer.
- C. Base, Carpet Edge, and Transition Strips: As specified in applicable sections.

PART 3- EXECUTION

3.01 EXAMINATION / PREPARATION

- A. Prepare sub-floor to comply with criteria established in Manufacturer's installation instructions. Use only preparation materials that are acceptable to the Manufacturer.
 - 1. Remove all deleterious substances from substrate(s) that would interfere with or be harmful to the installation.
 - 2. Remove sub-floor ridges and bumps. Fill cracks, joints, holes, and other defects.
- B. Verify that sub-floor is smooth and flat within specified tolerances and ready to receive carpet.
- C. Verify that substrate surface is dust-free and free of substances that would impair bonding of product to the floor.
- D. Verify that concrete surfaces are ready for installation by conducting moisture and pH testing. Results must be within limits recommended by Manufacturer.
- E. There will be no exceptions to the provisions stated in the Manufacturer's installation instructions.

3.02 INSTALLATION - GENERAL

- A. Install product in accordance with Manufacturer's installation instructions.
- B. Verify carpet match before cutting to ensure minimal variation between dye lots.
- C. Layout carpet and locate seams in accordance with shop drawings.
 - 1. Do not locate seams perpendicular through door openings.
 - 2. Align run of pile in same direction as anticipated traffic and in same direction on adjacent pieces.
 - 3. Locate change of color or pattern between rooms under door centerline.
 - 4. Provide monolithic color, pattern, and texture match within any one area.
- D. Install carpet tight and flat on sub-floor, well-fastened at edges, with a uniform appearance.
- E. Double-cut carpet seams with accurate pattern match. Make cuts straight true, and unfrayed.

- F. Chemically weld all seams with manufacturer's recommended seam sealer as stated in installation instructions. Make sure the seam is fully sealed.
- G. Roll with appropriate roller for complete contact of carpet with mill-applied adhesive to sub-floor.
- H. Trim carpet neatly at walls and around interruptions.
- I. Completed carpet is to be smooth and free of bubbles, puckers, and other defects.

3.03 PROTECTION & CLEANING

- A. Remove excess adhesive and/or seam sealer from floor and wall surfaces without damage.
- B. All rubbish, wrappings, debris, trimmings, etc. to be removed from site and disposed of properly.
- C. Clean and vacuum carpet surfaces using a beater brush/bar commercial vacuum.
- D. After each area of carpet is installed, protect from soiling and damage by other trades.

END OF SECTION



FLOORCOVERINGS

Product Specification Sheet

GUARDIAN A+
POWERBOND® CONDENSED VINYL CUSHION
POWERBOND RS® CONDENSED VINYL CUSHION

Face Construction	IMPERIAL	METRIC	Effective 1/05
Construction	Level Loop		
Gauge	1/13	50.4 rows/10 cm	
Pile Units per Inch	8.6	33.9 pu/10 cm	(ASTM D-418, Section 12)
Pile Height Average	0.117 inch	3.0 mm	(ASTM D-418, Section 12)
Fiber System	Antron® Legacy Nylon		
Dye Method	65% Solution Dyed / 35% Yarn Dyed	14.2 Kilotex	
Soil/Stain Protection	Ensure		

Powerbond Cushion Backing System

Product Width	6 ft.	1.8 m
Primary Tufting Substrate	Synthetic Non-Woven	
Backing	Closed-Cell Condensed Vinyl Cushion	
RS Adhesive System	Microencapsulated Tackifier applied to 100% of backing during manufacturing	
Total Product Weight RS (Non-RS)	71.4 (68.9) oz/sq yd +/- 5%	2420 (2336) g/sq m

Product Testing/Information

Surface Flammability	Passes CPSC FF 1-70	(ASTM D-2859)
Flooring Radiant Panel	Class 1 (mean average CRF: 0.45 w/sq cm or higher)	(ASTM E-648)
Electrostatic Propensity	3.0 kV or lower	Permanent Conductive Fiber (AATCC 134)

Warranties

25 year non-prorated limited warranty against excessive surface wear and static, delamination, edge ravel, zipper, and backing resiliency loss. See limited warranty for details. Limited warranty and maintenance information may be accessed at www.tandus.com/limitedwarranty and www.tandus.com/maintenance or by dialing 800-248-2878.

Product Notes

- The product, when tested with its attached backing as represented by averages of testing from random samplings of production lots, meets flammability requirements for the following nationally recognized buildings codes for floor coverings: BOCA National Building Code, NFPA Life Safety Code for Safety to Life in Buildings and Structures, Standard Building Code, Uniform Fire Code. It is the responsibility of the end user to determine if the product meets appropriate local codes.
- Product specifications are derived from averages resulting from normal manufacturing tolerances in yarn, fiber, temperature, humidity and color and may vary within normal industry and standardized testing tolerances. These specifications reflect mean averages based on tests of production runs of this carpet style by independent laboratories. A range of variances is implicit in the testing process. Furthermore, the standard test methods established to derive the specifications lack a high degree of precision and repeatability; therefore, individual test results on the actual carpet purchased may vary above or below the mean average.
- C&A has a carpet collection / recovery system and a currently operational, commercial scale, recycling process to recycle vinyl backed carpet. Carpet recycled in the process is used to produce ER3, 100% recycled content secondary backing. Powerbond carpet, when recovered is 100% recyclable in this process as verified by Scientific Certification Systems.
- Backing or other materials may be changed without prior notice when shortages occur or when technological advancements become available which provide for improvement of the product's performance.
- Colors may vary slightly from dye lot to dye lot.
- Recyclable polyethylene plastic bags are supplied with each order so that packaging (polyethylene plastic wrap and cardboard) can be recycled in a local program.
- U.S. Patent numbers 4,849,267 and other patents pending.
- This style is also available in 18" x 18" modular tile.



Tandus